

Associations between physicians' personal preferences for end-of-life decisions and their own clinical practice: PROPEL survey study in Europe, North America, and Australia

Palliative Medicine
2025, Vol. 39(2) 266–276
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DOI: 10.1177/02692163241300853
journals.sagepub.com/home/pmj



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Abstract

Background: Physicians have significant influence on end-of-life decisions. Therefore, it is important to understand the connection between physicians' personal end-of-life care preferences and clinical practice, and whether there is congruence between what they prefer for themselves and for patients.

Aim: Study to what extent physicians believe their personal end-of-life preferences impact their clinical practice and to what extent physicians' personal treatment option preferences differ from what they prefer for their patients.

Design: A cross-sectional survey was conducted from May 2022 to February 2023.

Setting/participants: Eight jurisdictions: Belgium, Italy, Canada, USA (Oregon, Wisconsin, and Georgia), and Australia (Victoria and Queensland). Three physician types were included: general practitioners, palliative care physicians, and other medical specialists.

Results: We analyzed 1157 survey responses. Sixty-two percent of physicians acknowledge considering their own preferences when caring for patients at the end of life and 29.7% believe their personal preferences impact the recommendations they make. Palliative care physicians are less likely to consider their own preferences when caring for and making recommendations to patients. Congruence was found between what physicians prefer for patients and themselves with cardiopulmonary resuscitation considered “not a good option for both” by 99.1% of physicians. Incongruence was found with physicians considering some options “not good for the patient, but good for themselves”—palliative sedation (8.3%), physician-assisted suicide (7.0%), and euthanasia (11.6%).

Conclusion: Physicians consider their own preferences when providing care and their preferences impact the recommendations they make to patients. Incongruence exists between what physicians prefer for themselves and what they prefer for patients.

Keywords

End-of-life care, palliative care, euthanasia, physician assisted dying, cross-sectional survey

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What is already known about the topic?

- Decision-making at the end of life is complex and may include withholding or withdrawing life-sustaining treatment, the intensification of symptom management, palliative sedation, or assisted dying.
- Physicians have significant influence on end-of-life decisions and patients often seek help making difficult decisions by asking their physician what they would do in their position so it is expected that physicians would consider what they would want for themselves.
- How physicians perceive their personal end-of-life preferences impact their own clinical practice and whether there is congruence in what physicians prefer for themselves and their patients is not well understood.

What this paper adds?

- This article identifies that physicians consider their own preferences when caring for patients and believe their personal preferences impact the recommendations they make to patients.
- This article identifies incongruence between what end-of-life decisions physicians believe they would prefer for themselves and for patients, particularly in some practices physicians consider good or very good for themselves but not for patients.
- This article also identifies variation found in physicians' perceptions about their personal preferences and clinical practice and congruence of end-of-life decisions in eight jurisdictions across five countries, and among three groups of physicians.

Implications for practice, theory, or policy

- Clear policies and ethical guidelines are needed to help physicians maintain professional boundaries and ensure that clinical recommendations are based on patient preferences rather than personal beliefs or biases.
- Ethical guidelines would help physicians navigate complex decisions, such as those involving physician-assisted suicide or euthanasia.
- The promotion of palliative care training, which fosters a person-centered approach, could help reduce the influence of personal preferences on patient recommendations, making it crucial to integrate palliative care principles into general medical education.
- Addressing cultural and religious influences on physician decision-making through cultural competency training is vital.

Introduction

Medical decision-making is particularly complex at the end of life and may include withholding or withdrawing life-sustaining treatment, the intensification of symptom management or palliative sedation.^{1,2} In a growing number of countries it also includes assisted dying, an umbrella term covering voluntary assisted dying (VAD), medical aid in dying (MAiD), euthanasia, or physician-assisted suicide (PAS). Assisted dying refers to the act of intentionally ending the life of a patient by a clinician by means of active drug administration or the provision or prescribing of drugs at that patient's explicit request.³ It is estimated that up to half of all deaths in Western countries are preceded by at least one end-of-life decision.⁴

Physicians have significant influence on healthcare decisions and various factors influence physicians' clinical decisions and attitudes about end-of-life care.^{2,5} These factors include expertise, medical specialty, level of experience, comfort providing end-of-life care, clinical guidelines, values, religiosity, and spirituality.^{2,5} Since patients frequently seek help, advice, or reassurance when making difficult decisions by asking their physician what they would do in their position, it is expected that physicians would consider what they would want for themselves.^{6,7} Consequently, gaining a better understanding of the

connection between physicians' own preferences and their practice is of clinical importance.

Existing studies on physicians' attitudes about end-of-life care demonstrate that physicians generally prefer less aggressive care and fewer resuscitative measures at the end of life, though their personal preferences are not always reflected in their clinical practice.^{8–11} Research has revealed a discrepancy between what doctors personally desire—comfort over prolonging life—and the care patients often receive.¹² Existing studies of physicians' preferences are outdated and limited in focus, both geographically and regarding the end-of-life practices they investigate. A key gap in this area of research is the disconnect between physicians' personal preferences and their clinical practices, and how these preferences are communicated and respected in real-world medical settings. Additionally, research is needed to explore how cultural, ethical, and systemic factors influence the discrepancy between physicians' end-of-life care for themselves versus their patients.

This study aims to explore the connection between physicians' personal end-of-life decision preferences and their own clinical end-of-life practice across three continents (North America, Europe, and Australia) among three groups of physicians (general practitioners, palliative care physicians, and other medical specialists). Exploring across jurisdictions and specialties is important

because the connection between personal preferences and clinical practice may vary between medical specialties and macro-level contexts, due to training, exposure to patients at the end of life, or other factors.

Since assisted dying legislation can have a substantial impact on the role of physicians and medical practice,¹³ we intentionally selected physicians practicing in jurisdictions which have diverse cultural environments and varied levels of experience with assisted dying legislation (Supplemental Material 1). We address the following research questions:

RQ1: To what extent do physicians believe their personal end-of-life preferences impact their own clinical practice and how do they compare across physician groups and jurisdictions?

RQ2: To what extent do physicians' personal treatment option preferences differ from their treatment option preferences for patients in similar health scenarios?

Methods

Study design

We conducted a self-administered cross-sectional survey across various countries in North America, Europe, and Australia.

Context and setting

We included jurisdictions in North America (Canada and the US states Oregon, Wisconsin, and Georgia); Europe (Belgium (Flanders), Italy); and Australia (states of Victoria and Queensland). Countries were purposely selected to obtain perspectives from diverse jurisdictions with varied legal options regarding assisted dying. Our goal was to include physicians with diverse cultural and religious backgrounds and different levels of exposure to and experience with assisted dying practices (Supplemental Material 2).

Participants

The study population included currently practicing general practitioners, palliative care physicians and other medical specialists with a high likelihood of seeing patients facing end-of-life issues (i.e. cardiologists, emergency medicine, gastroenterologists, geriatricians, gynecologists, internal medicine, intensivists, nephrologists, neurologists, oncologists, pulmonologists).

A convenience sample of 150–200 physicians in each jurisdiction was sought. Our goal was a distribution of physician groups that included a minimum of 60 general practitioners, 30 palliative care physicians, and 60 medical specialists in each jurisdiction, for a minimum total of 150 physicians in each jurisdiction.

Data collection and recruitment

Data were collected between May 2022 and February 2023 using a self-administered web-based questionnaire (Supplemental Material 3) on the Qualtrics online survey platform. To ensure participant privacy, we used an anonymous link and did not collect personal identifiable information. The survey invitation was shared via email by our international research partners or their professional contacts within physician organizations, medical licensing boards, commercial registries, professional networks and on social media. An initial survey invitation was sent by email, followed by a maximum of three reminders.

Questionnaire

The survey instrument is an adaptation of a validated questionnaire, which underwent substantial modification and pilot testing.¹⁴ Cognitive testing was conducted to evaluate the questionnaire for question order, clarity and appropriateness of terminology with two to four physicians in each jurisdiction followed by revision and further testing. Participants provided consent at the start and the final survey comprised 38 questions, with a total completion time of approximately 10 min.

We used several items to assess the connection between physicians' own end-of-life preferences and their clinical practice: the extent to which they consider what they would want for themselves when caring for patients at the end of life, whether they believe their personal end-of-life preferences impact the recommendations they make to patients, and whether they feel it is appropriate to consider their own personal end-of-life preferences when caring for a patient, using a 5-point Likert scale from (1) strongly disagree to (5) strongly agree.

To further assess the connection between physicians' own end-of-life decision preferences and clinical practice, we used two case vignettes with hypothetical end-of-life scenarios, one cancer scenario and one Alzheimer's disease scenario, first in reference to a patient, then to the physician themselves (Box 1). Physicians were asked to what extent they would consider various end-of-life practices, including: cardiopulmonary resuscitation, mechanical ventilation, artificial nutrition and hydration, intensified alleviation of symptoms, palliative sedation, using available medications to end one's own life, physician-assisted suicide and euthanasia, first for a patient, and then for themselves. Preferences were measured using a 4-point Likert scale, with physicians asked, "Which of the following would you consider possible options for this particular case (if there is an indication for it)?" using the following response options, "(1) Not at all a good option (2) Not such a good option (3) A good option (4) A very good option."

Box 1. End-of-life scenarios and end-of-life decision preferences included in the PROPEL questionnaire.

Cancer scenario*	You have been diagnosed with cancer with extensive lung and bone metastases and your treating oncologist has said no further treatments are available. You have an estimated life expectancy of no more than 2 weeks and are fully competent. You are experiencing ongoing severe pain and agitation. A palliative care provider is involved and palliative care services (e.g. home care and inpatient hospice) are available for you.
Alzheimer's scenario*	You are suffering from Alzheimer's dementia in gradual cognitive decline and you no longer recognize your family or friends. You refuse to eat and drink and have become more and more withdrawn. It is no longer possible to communicate with you about medical treatment options. A palliative care provider is involved and palliative care services (e.g. home care and inpatient hospice) are available for you.
Preferences for end-of-life decisions*	Right now, which of the following would you consider possible options for yourself (if there were an indication for it)? Response options (1) <i>Not at all a good option</i> (2) <i>Not such a good option</i> (3) <i>A good option</i> (4) <i>A very good option</i> - the use of cardiopulmonary resuscitation - the use of mechanical ventilation - the use of intravenous hydration - the use of a feeding tube (gastrostomy, jejunostomy, or intravenous) to provide nutrition - to intensify the alleviation of symptoms by using medications, taking into account the probability or certainty that this could hasten your death - to use high doses of medications, such as benzodiazepines or barbiturates, to be kept in deep sedation until death - to request medications from your health care practitioner that would allow you to end your own life, if it is currently legal or were to become a legal option in your jurisdiction - to use medications which are at your disposal as a physician to end your own life - to request assistance from a medical practitioner who could administer a substance to end your life, if it is currently legal, or were to become a legal option in your jurisdiction *Scenarios for physician (self) shown here. Patient scenarios for cancer and Alzheimer's were also included and preference options were modified to fit each scenario (physician assisted suicide not presented with the Alzheimer's scenario).

Additional questions were included on demographic-, cultural-, and institutional-level factors that may influence physicians' end-of-life decision preferences including gender, age, physician specialty, average number of end-of-life patients annually, ethnicity, and religion.

Statistical analysis

We calculated the proportion of physicians that agreed or strongly agreed with each of the items on physicians' perceived connection between their personal end-of-life preferences and clinical practice. To examine congruence between the end-of-life practice preferences of physicians for themselves and what they prefer for patients in scenarios of cancer and Alzheimer's we conducted univariate analyses for each option for both scenarios to report percentages for response options "a very good/good option for both," "not a good option for both," "good for physician, not good for patient," "not good for physician, good for patient" (Table 3). All analyses were done using SPSS (version 28). Binary logistic regression analysis was conducted using modeling for each of the three outcomes separately (whether physicians perceive an impact of their personal end-of-life preferences on their clinical practice). Variables analyzed include: jurisdiction, gender, age, physician group, palliative care training, yearly end-of-life patients, and religion. The variable related to years

of practice was omitted from Table 2 due to issues of multicollinearity with the variable for age (correlation coefficient 0.82). Data were reviewed for duplicate responses and none were found. For each jurisdiction and age group included, analysis was calculated against the mean, as opposed to a reference category.

Ethical considerations

The study protocol was approved by the medical ethics committee of the Brussels University Hospital that acts as central ethics committee (BUN:1432021000562, September 29, 2021). Approvals were also obtained from ethics committees in Australia (Queensland University of Technology:20225080, December 17, 2021), Canada (Ottawa Hospital Research Institute:20220217-01H, August 29, 2022), and Italy (AUSL, Comitato Etico dell'Area Vasta Emilia Nord:748EE93B, April 7, 2022). Formal ethics approvals were not required by the other participating consortium partners/institutions.

Results

We received 1408 survey responses. Of those, 251 were excluded because they were ineligible or incomplete, resulting in a final sample of 1157 physicians (Table 1). Responses were considered incomplete if less than 80%

Table 1. Characteristics of physicians in the sample, per jurisdiction.

Variable	Overall (N = 1157)		CA (N = 113)		USA		WI (N = 161)		OR (N = 169)		GA (N = 116)		BE (N = 154)		IT (N = 196)		AUS ^b		VIC (N = 128)		QLD (N = 98)	
	N (%)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Gender ^a																						
Male	523 (49.1)	58.4			43.0		45.3		50.9		37.5		47.4		62.1		51.7					
Female	542 (50.9)	41.6			57.0		54.7		49.1		62.5		52.6		37.9		48.3					
Age																						
30–39 years	237 (22.1)	28.7			29.4		12.1		21.7		28.5		22.3		17.2		16.1					
40–49 years	289 (27.0)	33.7			37.9		24.8		19.8		25.7		24.9		20.7		29.9					
50–59 years	280 (26.2)	21.8			23.5		32.9		19.8		33.3		21.2		25.0		28.7					
60+ years	264 (24.7)	15.8			9.2		30.2		38.7		12.5		31.6		37.1		25.3					
Physician group																						
General practitioner	390 (34)	1.8			32.1		43.0		34.5		26.6		33.7		37.0		64.6					
Palliative care	249 (21.7)	41.6			13.8		7.9		19.8		27.3		42.3		8.7		7.3					
Other medical specialty	509 (44.3)	56.6			54.1		49.1		45.7		46.1		24.0		54.3		28.1					
Years of practice																						
<5 years	193 (16.9)	20.7			20.1		10.8		16.1		17.6		20.4		13.4		15.6					
5–10 years	197 (17.3)	24.3			23.9		15.7		15.2		16.3		15.3		13.4		14.6					
11–20 years	319 (28.0)	25.2			34.0		27.1		18.8		26.8		31.6		24.4		33.3					
>20 years	432 (37.9)	29.7			22.0		46.4		50.0		39.2		32.7		48.8		36.5					
Average yearly end-of-life patients																						
<5	255 (24.9)	7.3			16.6		31.1		32.4		21.9		16.5		39.2		64.9					
5–10	175 (17.1)	15.6			22.9		23.2		21.6		15.2		19.1		0		0					
11–20	122 (11.9)	12.8			15.9		14.6		10.8		20.5		8.2		0		0					
21–30	75 (7.3)	8.3			8.9		3.7		6.3		6.6		6.2		17.6		3.5					
>30	399 (38.9)	56.0			35.7		27.4		28.8		35.8		50.0		43.2		31.6					
Religion																						
Christian	451 (42.4)	30.7			46.8		32.9		60.0		31.7		61.5		31.0		36.0					
Non-religious	481 (45.2)	52.5			40.3		49.3		14.3		65.5		34.9		56		47.7					
Other religion	131 (12.3)	16.8			13.0		17.8		25.7		2.8		3.6		12.9		16.3					
Ethnicity																						
White/European	859 (81.1)	74.3			82.5		79.3		62.9		98.6		82.4		82.5		75.6					
African/Black	19 (1.8)	0			0.6		2.1		11.4		0.7		0		0.9		1.2					
Latino/Hispanic	46 (4.3)	1			1.3		3.4		4.8		0		16.1		0		1.2					
Asian	79 (7.5)	17.8			8.4		10.3		11.4		0		0		11.4		8.5					
Other	56 (5.3)	6.9			7.1		4.8		9.5		0.7		1.6		5.3		13.4					

WI: Wisconsin; OR: Oregon; GA: Georgia; CA: Canada; BE: Belgium; IT: Italy; VIC: Victoria; QLD: Queensland.

Missing values: Gender: n = 87; Age: n = 87; Physician group: n = 9; End-of-life patients: n = 131; Religion: n = 94; Ethnicity: 98.

^aGender percentages exclude n = 5 responses of “other” and “prefer not to say.”^bFor n = 22 Australian cases jurisdiction is unknown.

Table 2. Physician perceived impact of physicians' personal end-of-life preferences on their clinical practice.

	I frequently consider what I would want for myself when caring for patients who are at the end of life		My personal end-of-life preferences impact the recommendations I make to patients		I feel it is appropriate to consider my personal end-of-life preferences when caring for patients	
	% ^a	OR (95% CI)	% ^a	OR (95% CI)	% ^a	OR (95% CI)
Overall	62.0	–	29.7	–	23.9	–
North America						
Canada	57.4	1.0 (0.7–1.5)	19.8	0.7 (0.4–1.2)	21.8	0.9 (0.6–1.4)
Oregon, USA	65.5	1.1 (0.8–1.6)	29.1	1.0 (0.7–1.5)	29.7	1.3 (0.9–1.9)
Wisconsin, USA	68.4	1.3 (0.9–1.8)	32.9	1.2 (0.9–1.7)	21.1	0.8 (0.5–1.2)
Georgia, USA	68.6	1.4 (0.9–2.0)	37.1	1.7 (1.1–2.6)*	30.5	1.3 (0.9–2.0)
Europe						
Belgium	70.8	1.7 (1.2–2.5)*	34.7	1.6 (1.1–2.3)*	23.6	1.1 (0.8–1.7)
Italy	52.1	0.7 (0.5–1.0)	31.3	1.5 (1.0–2.1)*	16.2	0.7 (0.5–1.2)
Australia						
Victoria	59.5	0.7 (0.5–1.1)	26.7	0.5 (0.3–1.0)*	24.1	0.8 (0.5–1.4)
Queensland	52.9	0.6 (0.3–0.9)*	19.5	0.5 (0.3–1.0)	29.9	1.3 (0.7–2.4)
Gender						
Male	61.5	Ref.	31.0	Ref.	26.9	Ref.
Female	62.4	0.9 (0.7–1.2)	28.6	0.8 (0.6–1.1)	21.0	0.7 (0.5–0.9)*
Age						
30–39 years	63.4	0.9 (0.7–1.2)	29.7	1.0 (0.8–1.3)	22.4	1.1 (0.8–1.4)
40–49 years	65.7	1.3 (1.0–1.6)*	32.5	1.2 (0.9–1.5)	24.7	1.0 (0.9–1.4)
50–59 years	57.2	0.9 (0.7–1.1)	25.1	0.8 (0.5–1.3)	18.5	0.6 (0.5–0.9)*
60+ years	61.8	1.0 (0.8–1.3)	31.3	0.9 (0.7–1.2)	29.7	1.3 (1.0–1.7)
Physician group						
Palliative care	53.8	Ref.	18.8	Ref.	18.4	Ref.
General practice	66.0	1.5 (0.9–2.6)	32.3	2.3 (1.3–4.0)*	24.8	1.0 (0.5–1.9)
Other medical specialty	63.2	1.1 (0.7–1.7)	33.2	2.5 (1.5–4.1)*	25.9	1.1 (0.6–1.8)
Palliative care training						
Yes	56.7	Ref.	24.6	Ref.	17.7	Ref.
No	65.0	1.2 (0.8–1.7)	32.3	1.2 (0.8–1.8)	27.2	1.6 (1.0–2.5)*
Average yearly end-of-life patients						
<5	65.0	Ref.	29.2	Ref.	24.0	Ref.
5–10	66.5	1.0 (0.6–1.6)	34.1	1.1 (0.7–1.7)	24.0	1.1 (0.7–1.9)
11–20	69.8	1.1 (0.7–1.9)	30.2	1.0 (0.6–1.6)	26.7	1.3 (0.7–2.2)
21–30	58.6	0.8 (0.5–1.5)	31.4	1.1 (0.6–2.1)	24.3	1.2 (0.6–2.3)
>30	56.0	0.9 (0.6–1.4)	27.2	1.2 (0.8–2.0)	21.7	1.2 (0.7–2.0)
Religion						
Christian	61.5	Ref.	32.6	Ref.	24.2	Ref.
Non-religious	61.5	0.9 (0.7–1.3)	29.1	0.9 (0.6–1.2)	23.3	0.9 (0.6–1.3)
Other	66.1	1.1 (0.7–1.7)	21.3	0.5 (0.3–0.9)*	25.2	0.8 (0.5–1.3)

Missing values: Gender: $n = 87$; Physician group: $n = 9$; End-of-life patients: $n = 131$. Binary logistic regression analysis modeled for each of the three outcomes separately. For each jurisdiction and age group included, analysis was calculated against the mean, as opposed to a reference category. Variables analyzed include: jurisdiction, gender, age, physician group, palliative care training, yearly end-of-life patients and religion.

^aPercentage of physicians who agree or strongly agree with the statement.

* Bold indicates statistical significance.

Table 3. Difference between physicians' personal end-of-life decision preferences and recommendations to patients.

End of life decision	Advanced cancer		Alzheimer's disease			
			Congruent		Incongruent	
	Good/very good option for both (%)	Not a good option for both (%)	Good for physician, not good for patient (%)	Not good for physician, good for patient (%)	Good/very good option for both (%)	Not a good option for both (%)
Cardiopulmonary resuscitation	0.1	99.1	0.4	0.5	0.2	99.3
Mechanical ventilation	0.2	98.8	0.6	0.4	0.2	99.4
Intravenous hydration	18.4	70.7	3.1	7.9	16.0	77.4
Feeding tube	2.3	94.4	1.2	2.1	3.2	93.3
Intensified alleviation of symptoms	90.5	2.0	3.1	4.3	87.8	5.3
Palliative sedation	50.9	32.5	8.3	8.4	32.2	46.0
Physician-assisted suicide	43.3	41.0	7.0	8.8	NA	NA
Euthanasia	42.8	38.9	11.6	6.7	35.7	44.2
					15.8	4.3

Scenario: You have been diagnosed with cancer with extensive lung and bone metastases and your treating oncologist has said no further treatments are available. You have an estimated life expectancy of no more than 2 weeks and are fully competent. You are experiencing ongoing severe pain and agitation. A palliative care provider is involved and palliative care services (e.g. home care and inpatient hospice) are available for you. Scenario: You have an 80-year-old patient diagnosed with Alzheimer's dementia. It is a typical case with gradual cognitive decline and the patient no longer recognizes family or friends. They now refuse to eat and drink and have become more and more withdrawn. It is no longer possible to communicate with them about medical treatments. A palliative care provider is involved and palliative care services (e.g. home care and inpatient hospice) are available for this patient. Percentages are row percentages. Missing values range from 6.4% to 7.3%.

of the questions were answered or the response excluded the end-of-life scenario questions. Due to the use of convenience sampling, an exact response rate cannot be determined; however, our interest was on associations between variables more than in point estimates of a given variable (prevalence) and this focus is less prone to bias from low response rates.¹⁵

Responses came from eight jurisdictions including in North America: Canada ($N = 113$), Oregon US ($N = 169$), Wisconsin US ($N = 161$), Georgia US ($N = 116$); in Europe: Belgium ($N = 154$) and Italy ($N = 196$); and in Australia: Victoria ($N = 128$) and Queensland ($N = 98$). Seventy percent of respondents were physicians between 40 and 59 years old and there was almost equal participation of male and female physicians. The spread of responses came close to our goal with overall 389 general practitioners, 249 palliative care physicians, and 510 other medical specialists with end-of-life experience. Most physicians were White/European (74%) and identified as either non-religious (43%) or Christian (39%). Most physicians reported caring for either approximately <10 end-of-life patients per year (42%), or approximately >30 end-of-life patients per year (38.9%).

Perceived impact of physicians' personal end-of-life preferences on clinical practice

Across the sample, 62% of physicians said they frequently consider their own personal end-of-life preferences when caring for their end-of-life patients. Physician responses varied across jurisdictions, with the highest percentage of physicians who perceive considering their preferences when caring for patients found in Belgium (compared to the mean; 70.8%; OR = 1.7, 95% CI = 1.2–2.5), while the lowest percentage of physicians was found in Queensland (52.9%; OR = 0.6, 95% CI = 0.3–0.9; Table 2). Palliative care physicians and physicians who care for a high number of patients with end-of-life issues (>30 /year) least frequently perceive considering their own preferences when caring for patients (respectively, 53.8% and 56.0%; not significant).

Across the sample, 29.7% of all physicians agree or strongly agree that their personal preferences impact the recommendations they make to patients. Physicians who were more likely to agree include those from Georgia (37.1%; OR = 1.7, 95% CI = 1.1–2.6), Belgium (34.7%; OR = 1.6, 95% CI = 1.1–2.3), and Italy (31.3%; OR = 1.5, 95% CI = 1.0–2.1). Physicians from Victoria were less likely to agree (26.7%; OR = 0.5, 95% CI = 0.3–1.0; than the mean). Those who say their personal preferences impact recommendations to patients was lowest among palliative care physicians (18.8%; not significant). General practitioners and other medical specialists were more likely than palliative care physicians to say their personal preferences impact recommendations to patients (32.3%; OR = 2.3, 95% CI = 1.3–4.0), and (33.2%; OR = 2.5, 95%

CI = 1.5–4.1), respectively. Those who identified as religious (not Christian) were less likely than non-religious and Christian physicians to agree that their personal preferences impact recommendations to patients (21.3%; OR = 0.5, 95% CI = 0.3–0.9).

Across the sample, 23.9% of all physicians agree or strongly agree that it is appropriate to consider their own personal preferences when caring for patients. Physicians in the age group 50–59 years responded least often that it is appropriate to consider personal preferences when caring for patients (18.5%; OR = 0.6, 95% CI = 0.5–0.9). Women were less likely to feel it is appropriate than men (21%; OR = 0.7, 95% CI = 0.5–0.9). Palliative care physicians and physicians with palliative care training least often reported that it is appropriate to consider their own preferences when caring for patients (18.4% (not significant)) and (17.7%), respectively.

Congruence of physicians' personal treatment option preferences and preferences for patients in similar health scenarios

The highest congruence in a medical scenario with advanced cancer was for life-sustaining treatments: cardiopulmonary resuscitation was considered not a good option for both themselves and the patient by 99.1% of physicians, mechanical ventilation by 98.8% and tube feeding by 94.4% (Table 3). The intensified alleviation of symptoms with medications was considered a good or very good option for both by 90.5% of physicians.

There was disagreement in responses in the advanced cancer scenario with physicians considering it good for the patient but not good for themselves for intravenous hydration (7.9%), palliative sedation (8.4%), physician-assisted suicide (8.8%), and euthanasia (6.7%). There was disagreement in responses with physicians considering it not good for the patient, but good for themselves for palliative sedation (8.3%), physician-assisted suicide (7.0%), and euthanasia (11.6%). Physician-assisted suicide and euthanasia were considered a good or very good option for both themselves and patients, (respectively, 43.3% and 42.8%).

The Alzheimer's disease scenario showed similar findings with the highest congruence relating to life-sustaining treatments, with cardiopulmonary resuscitation and mechanical ventilation being considered not a good option for both themselves and the patient by 99.3% and 99.4%, respectively. The use of a feeding tube was considered not a good option for both by 93.3% of physicians. The intensified alleviation of symptoms with medications was considered a good or very good option for both by 87.8%. Responses related to the use of intravenous hydration showed disagreement, with 4.8% considering it good for the patient but not good for themselves. Higher levels of discordance were seen for palliative sedation with

17.6% of physicians considering it a good or very good option for themselves but not for the patient.

When asked about assisted dying practices in the Alzheimer's scenario, 35.7% of physicians considered euthanasia a good or very good option for both themselves and patients and 15.8% indicated it would be a good or very good option for themselves but not for the patient.

We also conducted hypothesis-driven analyses exploring the degree to which physicians (dis)agree for themselves and for their patients and whether they would answer more positively or negatively for themselves, but more moderately for their patients but this was unconfirmed.

Discussion

Summary of main findings

Across jurisdictions, our findings indicate nearly two thirds of physicians acknowledge considering their own care preferences when caring for patients at the end of life and almost one third believe the recommendations they make to patients are impacted by their personal preferences. Palliative care physicians and physicians with palliative care training are less likely to consider their own preferences when caring for patients and when making recommendations and are less likely than other physicians to consider it appropriate to consider their own preferences when caring for patients. This finding is in line with research indicating that palliative care physicians sometimes utilize bias management strategies including self-awareness during end-of-life discussions.¹⁶ Variation was found across jurisdictions and do not appear linked to the existence of assisted dying legislation.

There is striking incongruence between what physicians prefer for patients and what they would want for themselves for certain end-of-life practices. While research is limited, some findings have shown that physicians were more likely to choose a treatment with a higher risk of death for themselves than for a hypothetical patient.¹⁷ Studies of physicians have also indicated they want less life-sustaining treatment for themselves than they would order for their older patients, which is also more than the patients would prefer for themselves.¹² We found physicians consider some options “not good for the patient, but good for themselves”—palliative sedation (8.3%), physician-assisted suicide (7.0%), and euthanasia (11.6%). There are interesting similarities between physicians' preferences for themselves and patients in the cancer and Alzheimer's scenarios including the preference to intensify alleviation of symptoms and avoid life-prolonging practices. While the differences between the cancer and Alzheimer's scenarios were not substantial, we found the percentage of incongruence for the Alzheimer's scenario is larger with physicians finding palliative sedation and euthanasia a good option more

strongly for themselves than for patients. This may relate to the difficulty of making these consequential end-of-life decisions for people with cognitive impairment. However, the overall similarity in responses for cancer and Alzheimer's suggests that variations in these medical conditions may not play a significant role in the congruence of considering something a good option or not for yourself and your patient. Additional research with other medical scenarios could help corroborate this finding.

These study findings both align with and expand on existing literature, showing that many physicians' personal end-of-life preferences have a significant influence on the care they provide to patients. This extends previous research and adds new insights into specific practices, such as palliative sedation and assisted dying. These findings also highlight the role of palliative care training in reducing bias and increase our understanding about the influence of cultural and religious factors on physician decision-making.

Strengths and limitations

A major strength of our study is the inclusion of physicians across five countries and eight jurisdictions, representing varied legal and cultural environments. By focusing on the association between physicians' personal preferences for end-of-life decisions and their clinical practice, contrasting jurisdictions with and without assisted dying legislation, and including our desired spread of three groups of physicians—general practitioners, palliative care physicians, and medical specialists, we provide a much-needed addition to the current literature on end-of-life preferences. The study had certain limitations. The pragmatic choice for convenience sampling does not allow for random selection, meaning the point estimates cannot be considered representative of the sampled populations. There may be selection bias as the survey could have attracted those with a particular interest in end-of-life issues, or bias with some physicians considering it more socially acceptable to respond that their personal preferences do not influence their clinical practice. Due to the sampling method, we could not use unique URLs to ensure physicians would not complete the survey multiple times; however, the data were reviewed for duplicate responses. Though the overall recruitment of respondents was satisfactory in all jurisdictions, there was a low representation of general practitioners in the Canadian sample. However, the comparison of groups is not affected as much as point estimates by lack of representativeness in a sample.

Interpretation of main findings

Considering nearly two-thirds of physicians consider their personal preferences when caring for patients, almost a third let their preferences influence the recommendations they make, and nearly a quarter of physicians believe

it is appropriate to do so, it is evident that many physicians find it challenging to avoid letting their preferences, consciously or unconsciously, affect their clinical practice. The findings of this study are in line with research suggesting a connection exists between the preferences physicians have for their own end of life and the recommendations they make to patients.² However, these findings are novel as they clearly demonstrate physicians recognize a connection between their personal preferences and clinical practice and offer a more comprehensive comparison of what physicians would choose for themselves versus their patients in various end-of-life situations. Further research is needed to better understand this connection and its impact on clinical practice. It may also be worthwhile to explore physicians' motivations for considering their own preferences as some may be seeking to heighten their own awareness and manage potential influence on patient decisions. The underlying normative question of whether it is appropriate for physicians' personal preferences to influence the recommendations they make to patients should also be considered.

The finding that palliative care physicians, and those with palliative care training, are less likely to consider their own preferences when caring for patients and much less likely to consider their own preferences when making recommendations, may relate to the fact that palliative care physicians typically take a person-centered approach in their clinical practice and may be able to keep more separation between their personal preferences and patient interactions than general practitioners or other medical specialists.¹⁸ It may also be that palliative care physicians have more end-of-life experience and expertise to draw on when making recommendations to patients.

When evaluating the impact of physicians' personal preferences on patient recommendations, the role of religion and culture is also worth considering. Physicians in jurisdictions with strong religious traditions (Italy and Georgia) show a much stronger connection between personal preferences and the recommendations made to patients. These physicians are undoubtedly guided by professional norms but there may be an important influence of cultural and religious beliefs as well. This may relate to some religious systems holding a firmer belief in what is considered the morally correct path or following what a higher power dictates as good behavior.¹⁹ This connection is also more pronounced in Belgium, which may have to do with the strong historical influence of Catholicism. It could also be that these populations are more homogenous and therefore physicians may be inclined to assume that others prefer what they would want for themselves. These findings are not entirely surprising given that previous research has indicated physicians with more strongly held religious beliefs are more likely to object to certain end-of-life practices and reinforces the importance of understanding the influence of physicians' personal values on clinical decision-making.²⁰

Policy and practice implications

These study findings suggest several important policy and practice implications. First, clear policies and ethical guidelines are needed to help physicians maintain professional boundaries and ensure that clinical recommendations are based on patient preferences rather than personal beliefs or biases, particularly in end-of-life care. Second, ethical guidelines would help physicians navigate complex decisions, such as those involving physician-assisted suicide or euthanasia. Third, the promotion of palliative care training, which fosters a person-centered approach, could help reduce the influence of personal preferences on patient recommendations, making it crucial to integrate palliative care principles into general medical education. Fourth, addressing cultural and religious influences on physician decision-making through cultural competency training is also essential, especially in jurisdictions where strong religious traditions impact patient care.

Further research is needed to explore how physicians' personal preferences influence patient outcomes across various medical scenarios, which could lead to more evidence-based policies.

In conclusion, many physicians consider their personal end-of-life preferences when caring for patients and believe their preferences impact the recommendations they make to patients. While there is a high level of congruence in what physicians prefer for themselves and recommend to patients for several life sustaining treatments, there is a striking proportion of physicians whose preferences do not align with what they feel is good for their patients—particularly for certain critical end-of-life options.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was supported by internal funding from the Vrije Universiteit Brussel and Ghent University

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Supplemental material

Supplemental material for this article is available online.

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